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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,678	08/31/2001	Atsushi Yamaguchi	110533	9275

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EXAMINER
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UHLIR, NIKOLAS J

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 03/05/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-6

# Office Action Summary

Application No.

09/942,678

Applicant(s)

YAMAGUCHI ET AL.

Examiner

Nikolas J. Uhler

Art Unit

1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) 2-4 and 6-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1 and 5, drawn to a magnetic thin film and a magnetic head using the thin film, classified in class 428, subclass 492.
  - II. Claims 2-4 and 6-8, drawn to a method for making a magnetic thin film and a magnetic head via electroplating, classified in class 205, subclass 80<sup>+</sup>.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product could have been made by another and materially different process, such as through sputtering from three targets, wherein the voltage applied to each target is individually controlled to control the composition of the resulting film.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Joel Armstrong on 3/03/03 a provisional election was made with traverse to prosecute the invention of the product, claims 1 and

Art Unit: 1773

5. Affirmation of this election must be made by applicant in replying to this Office action.

Claims 2-4 and 6-8 are withdrawn from further consideration by the examiner, 37

CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Priority***

6. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1 and 5 are rejected under 35 U.S.C. 102(e) as being unpatentable over Osaka et al. (US6120918).

9. Regarding the limitations of claim 1, wherein the applicant requires a cobalt-nickel-iron (hereafter CoNiFe) thin film containing 60-75% by weight cobalt, 10-20% by

Art Unit: 1773

weight nickel, and 1020% by weight iron, wherein the thin film has a crystal structure that is a mixture of bcc and fcc phases, wherein  $I_b/I_f$  is in the range of 0.3-0.7 inclusive, where  $I_b$  represents the intensity of an X-ray diffracted from a (110) plane of the bcc phase, and  $I_f$  represents the intensity of an X-ray diffracted from a (111) plane of the fcc phase.

10. With respect to these limitations, Osaka et al. (hereafter Osaka) teaches a CoFeNi thin film that comprises 40-70% by weight cobalt, 20-40% by weight Fe, and 10-20% by weight Ni, wherein the magnetic thin film comprises a mixture of fcc and bcc crystal structures (column 2, lines 17-14). In a specific embodiment, Osaka teaches a film that comprises 20% by weight Fe, 65% by weight Co, and 10% by weight Ni, said film exhibiting a mixture of fcc and bcc crystal structures (figure 6). Although Osaka does not teach the applicants required  $I_b/I_f$  ratio, the examiner takes the position that the x-ray diffraction properties (which  $I_b$  and  $I_f$  represent) are material properties. Thus, as the specific embodiment contains the required amounts of Ni, Fe, and Co, the examiner takes the position that the film will necessarily possess the required  $I_b/I_f$  ratio required by claim 1.

11. Regarding the limitations of claim 5, wherein the applicant requires a magnetic head having a specific structure. Figure 5 and column 4, lines 47-64 of Osawa et al. detail a magnetic head incorporating a CoFeNi film that meets all of the applicants claim 5 limitations. The  $I_b/I_f$  ratio is met as set forth above for claim 1.

***Examiners Comment***

Art Unit: 1773


12. The examiner respectfully invites the applicants to particularly point out any unexpected results that may be obtained from the instant invention.


**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikolas J. Uhler whose telephone number is 703-305-0179. The examiner can normally be reached on Mon-Fri 7:30 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau can be reached on 703-308-2367. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-0389.

  
nju  
March 3, 2003

  
Paul Thibodeau  
Supervisory Patent Examiner  
Technology Center 1700